

REMARKS

Claims 1-4, 7-9, 11, and 14-19, and 21-26 were pending and rejected in an Office Action dated May 28, 2010. Claims 1, 2, 14, 16-18, and 22 are amended in this Amendment and Response. Claim 4 is canceled and new claim 27 is added. These changes do not introduce new matter, and their entry is respectfully requested. In view of the Amendments herein and the Remarks that follow, Applicant respectfully requests that Examiner reconsider all outstanding rejections, and withdraw them.

Response to Rejections Under 35 USC § 112

Claim 2 stands rejected under 35 USC § 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action indicates that there is insufficient antecedent basis for the limitation, “the negligibility threshold” and that it is unclear how to determine, set, or define such a limitation.

Claim 2 recites “a negligibility threshold,” which provides proper antecedent basis for the later recited “the negligibility threshold.” Claim 2 furthermore clearly recites how the negligibility threshold is defined. Specifically, claim 2 recites that “the negligibility threshold [is] set such that, when the difference between foreground color and background color is below the negligibility threshold for a certain portion of the electronic message, said portion is invisible or nearly invisible to a typical human viewer of the electronic message.” Applicant requests reconsideration and withdrawal of the rejection.

Response to Rejections Under 35 USC § 101

Claims 16, 17, and 22 stand rejected under 35 USC § 101 as being directed to non-statutory subject matter. Specifically, the Office Action indicates that the “storage medium” is not limited solely to tangible embodiments because the medium may be a carrier wave. Claims 16, 17, and 22 have been amended to recite a “non-transitory computer-readable storage medium.” The recited “non-transitory computer-readable storage medium” specifically excludes carrier waves and therefore recites patentable subject matter under 35 USC § 101. Applicant requests reconsideration and withdrawal of the rejection.

Response to Rejections Under 35 USC § 103

Claims 1-3, 7-9, 11, 14-19, 21-23, and 26 stand rejected under 35 USC § 103 in view of U.S. Patent No. 6,842,773 (“Ralston”) and U.S. Patent No. 5,751,847 (“Wuyts”). Claim 4 stands rejected under 35 USC § 103 in view of Ralston, Wuyts, and U.S. Patent Publication No. 2002/0113801 (“Reavy”). Claims 24-25 stand rejected under 35 USC § 103 in view of Ralston, Wuyts, and U.S. Patent Publication No. 2002/0163527 (“Park”). These rejections are respectfully traversed.

Claim 1 recites a method for countering spam that disguises characters within an electronic message, comprising:

locating portions of the electronic message where a difference in color between foreground color and background color is negligible, the locating performed by a processor of the computer, the locating comprising:

determining whether at least one of the foreground color and the background color is a gray-scale color; and

responsive to at least one of the foreground color and the background color being a gray-scale color, determining a difference in saturation between saturation of the foreground

color and the background color, determining a difference in brightness between the foreground color and the background color, and deeming the difference in color between the colors to be negligible based on the difference in the saturation and the difference in brightness between the colors regardless of hue values of the colors;

deleting from the electronic message foreground characters from said portions, to form a redacted electronic message; and

forwarding the redacted electronic message to a spam filter.

(emphasis added)

The claim recites locating portions of the electronic message where the difference in color between foreground color and background color is negligible. This includes determining whether at least one of the foreground color and background color is a gray-scale color, and responsive to either color being gray-scale, deeming the difference between the colors to be negligible based on the difference in saturation and the difference in brightness between the colors regardless of the hue values of the colors. The located portions are then deleted from the electronic message prior to forwarding the redacted message to a spam filter.

The claimed invention beneficially takes into account that the difference between a gray-scale color and a non-gray-scale color can still be negligible. In the Office Action, Examiner questions how saturation values can be compared when the specification recites that all gray-scale colors have a saturation of zero percent. See Office Action, p. 4. In response, it is noted that the claim requires only that “at least one” of the foreground and background color is gray-scale. Thus, comparison of saturation is useful because it is not necessarily known whether both or only one of the two colors is a grayscale color.

Claim 1 is not obvious in view of Ralston and Wuyts. Ralston discloses detecting and blocking bulk mail. Ralston mentions removing “hidden” information from a message, where “[h]idden information is anything that is not visible to the user when reading the message such as white text on a white background ...” (Ralston, col. 12, line 66 – col. 13, line 6). However, Ralston does not disclose any technique for detecting such “hidden” information when the foreground and background colors do not exactly match. Wuyts discloses a method for determining a color of an object, but only discloses comparing color components to various reference values rather than comparing a foreground color to a background color.

Specifically, neither reference discloses “determining **a difference in saturation** between saturation of the foreground color and the background color, determining a **difference in brightness** between the foreground color and the background color, and deeming the difference in color between the colors to be negligible based on **the difference in the saturation** and **the difference in brightness** between the colors regardless of hue values of the colors.” (emphasis added). In Wuyts, a gray color is initially detected based on its saturation value. (Wuyts, col. 4, ll. 6-10, FIG. 5). In this initial detection, only a binary comparison is made that indicates whether the saturation value exceeds the threshold (i.e., the color is non-gray) or whether the saturation value does not exceed the threshold (i.e., the color is gray). However, at no point does Wuyts disclose determining or utilizing a “difference in saturation” between two colors (e.g., a 5% difference in saturation as recited in dependent claim 7, or a 3% difference in saturation as recited in dependent claim 8). Thus, for a non-gray color with a non-zero

saturation value, Wuyts could only detect that the color is not gray, but could not determine, for example, how similar the color is to a non-gray-scale color.

Following the binary determination in Wuyts, a color code is produced based only on brightness if the color was determined to be a gray color (Wuyts, col. 4 ll. 11-16, FIG. 5), or a color code is produced based only on hue if the color was determined to be non-gray. (Wuyts, col. 4 ll. 16-23, FIG. 5) Wuyts does not deem a difference in colors to be negligible based on a “the difference in the saturation and the difference in brightness between the colors regardless of hue values of the colors. ” Rather, Wuyts would not even be capable of making this determination because no “difference in saturation” is ever discovered. As a result, Wuyts, taken alone or in combination with Ralston, could not effectively compare two colors when it is known only that at least one of the colors is a grayscale color.

Based on the above remarks, Applicants respectfully submit that for at least these reasons a person of ordinary skill in the art would not find invention as defined in claims 1, 16, and 18 to be obvious over the cited references. Therefore, Applicant respectfully requests that Examiner reconsider the rejection and withdraw it. As to dependent claims, because claims 2-3, 7-9, 11, 14-15, 17, 19, and 21-26 are variously depend on claims 1, 16, and 18, all arguments advanced above with respect to claims 1, 16, and 18 are hereby incorporated so as to apply to these dependent claims.

Neither Reavy nor Park remedies the deficiencies of Ralston and Wuyts with respect to these arguments. Reavy discloses a system for improving the readability of text by modifying display characteristics of the text. Park discloses adjusting display monitor properties (e.g., contrast) based on a generated profile. Neither reference is

concerned with comparing a gray-scale color with another color that may or may not also be gray-scale.

Applicant is adding new claim 27. Applicant asserts that this claim is supported by the specification and is not anticipated or obvious in view of any of the references cited by the Examiner.

Applicant respectfully invites Examiner to contact Applicant's representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,

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